

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1-30 and 35-38 are currently pending in this application. Claims 31-34 were previously canceled without prejudice. Claims 1, 2, 5, 6, 9, 10, 12, 13, 17, 21, 22, 26, and 35 have been amended herein.

Claim Rejections - 35 USC §103(a)

Claims 1-30 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent Number 6,363,060 (hereinafter "Sarkar") in view of the background section of Sarkar. Claims 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarkar in view of U.S. Patent No. 6,246,673 to Tiedemann et al. (hereafter "Tiedemann").

The present invention simplifies synchronization with transmitted broadcast channel signals having a highest, or a sufficiently high, power level by setting the power level of the PSC and the midamble to a common fixed ratio for each base station. Since the power ratio of the PSC and the midamble code is fixed, the UE does not have to search for the midamble with the highest received power, but may instead identify a midamble code having a highest, or sufficiently high, power level based on detected PSC signals. This conserves time power resources within the UE.

Claim 1 has been amended to include "means to identify a received midamble code having a highest power level." Similarly claim 12 has been amended to include:

means to identify received midamble codes that have a power level such that the ratio of a power threshold and the received power level of the midamble code exceeds said common fixed ratio...

The Examiner asserts that Sarkar teaches a scheme of transmission of a PSC and the midamble code at a common fixed ratio for each base station. The Applicants respectfully disagree. The portion in Sarkar cited by the Examiner reads as follows:

Since the PSC and SSC signals are transmitted during the same 256-chip part of each frame, each is transmitted at half the power of the signals in the other parts. ... Though this makes PSC and SSC detection more difficult, it keeps the transmission signal power constant throughout each frame. (See column 1 lines 53-61).

Sarkar does not teach transmitting a PSC and a midamble code at a common fixed ratio. Sarkar makes no mention of midamble codes or power levels for midamble codes of a broadcast channel. The above cited portion discloses that since both the PSC and the SSC are transmitted on top of each other during the first 256 chips of each time slot, the power level of the PSC and the SSC, respectively, are set to half the power of the remaining portion of each time slot so that the power level during the first 256 chips of each time slot is set to equal to the power level of the remaining portion of the time slot. The above cited portion is for maintaining a

power level constant during one time slot. Sarkar fails to disclose setting the power level of the PSC of a primary synchronization channel and a midamble of a broadcast channel to a common fixed ratio as claimed.

None of the references alone or in combination disclose or suggest the identification of a midamble code having a highest or sufficiently high power level as now recited in the independent claims. As such independent claims 1, 5, 9, 12, 17, 21, 26 and 35 are allowable for the reasons set forth above without the need for additional comment. Accordingly, it is also believed that the remaining dependent claims are also allowable for the same reasons stated above.

Based on the arguments presented above, withdrawal of the 35 USC §103(a) rejection of claims 1-30 and 35-38 is respectfully requested.

Conclusion


If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

Applicants: Dick et al.
Application No.: 09/923,263

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1-30 and 34-38, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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